Title: DSP-11 DUAL-SPECIFICITY PHOSPHATASE

Inventor(s): Ralf M. Luche and Bo Wei Express Mail No. EV336617291US Docket No. 200125.418C1

DSP-11, 450 base pairs

Fig. 1

DSP-11, 150 amino acids

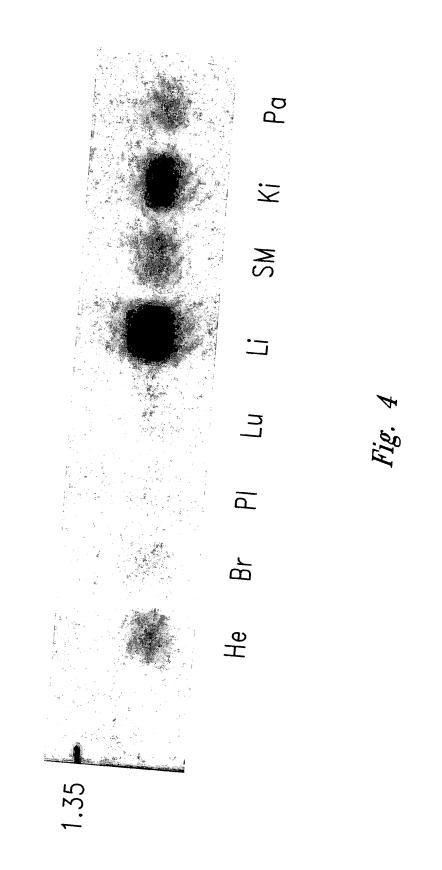
MGVQPPNFSWVLPGRLAGLALPRLPAHYQFLLDLGVRHLVSLTERGPPHSDSCPGLTLHRLRIPDFCPPAPDQIDRFVQIVDEANARGEAVGVHCALG FGRTGTMLACYLVKERGLAAGDAIAEIRRLRPGSIETYEQEKAVFQFYQRTK

Fig. 2

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			ω
100	NL PNL FENAGEFKYKQI PI SDHWSQNLSSCPKP-DFI CESRFMRVPI NDNYCEKLLSCPNHFEGL FHYKSI PVEDNHKADISDCPNHFEGHYQYKSI PVEDNHKADISRTSEACMTHLHYKWI PVEDSHTADIS FMHVNTNANFYKDSGITYLGI KANDTQEFNLS p f y ipi D s		Fig.
06	FKYKQIPISDI SRFMRVPINDI SRFMRVPINDI FHYKSIPVEDI IYQYKSIPVEDI IYQYKSIPVEDI ITYLGIKANDI SLTLHRLRIPDI J jpi D	NA TOOL TOOL TO	•
08	NLPNLFENAGEFKYKQIPISDHWSQNL: NLPNAFEHGGEFTYKQIPISDHWSQNL: SCPKP-DFICESRFMRVPINDNYCEKL: SCPNHFEGHYQYKSIPVEDNHKADI: NCPNHFEGHYQYKSIPVEDNHKADI: NCPNHFEGHYQYKCIPVEDNHKADI: NTSEACMTHLHYKWIPVEDSHTADI: NTNANFYKDSGITYLGIKANDTGFNL: NTNANFYKDSGITLHRLRIPD-FCPPA P f y jpi D	180 185 FERTLGLSS FERTLGLSS FERTLGLSS FERTLGLSS FERTLGLSS FERTLCLA FERTLCHS	a)
70	NL SC 	170+ FNFMGQLLD FNFMGQLLC FSFMGQLLC FSFMGQLLC FSFMGQLLC FSFMGQLLC FSFMGQLLC FSFMGQLCC FGFMGQLCC	ք ք gqll∯
09	SDL.DRD-PNSATDSDGSPLSNSQPSFPV-EILPFLYLGCAKDSTNLDVLEFGIKYILNVTPNLPNLFENAGEFKYKQIPISDHWSQNLS DRELPSSATESDGSPVPSSQPAFPV-QILPYLYLGCAKDSTNLDVLGKYGIKYILNVTPNLPNAFEHGGEFTYKQIPISDHWSQNLS GLCEGKPAALLPMSLSQPCLPVPSSQLTRILPHLYLGSQKDVLNKDLMTQNGISYVLNASNSCPKP-DFICESRFMRVPINDNYCEKLL PAQALPPAGAENSNSDPRVPIYDQGGPVEILPYLYLGSQKDVLNKDLMTQNGISYVLNASNSCPKP-DFICESRFMRVPINDNYCEKLL PAQALPPAGAENSNSDPRVPIYDQGGPVEILPYLYLGSAYHASRKDMLDALGITALLNVSASCPNHFEGLFHYKSIPVEDNHKADIS PLSTSVPDSAESGCSSCSTPLHDQGGPVEILPFLYLGSAYHASRKDMLDALGITALLNVSASCPNHFEGHYQYKSIPVEDNHKADIS SERALISQCGKPVVNVSYRPAYDQGGPVEILPFLYLGSAYHASRKCFLANLHITALLNVSSRTSEACMTHLHYKWIPVEDSHTADIS SERALISQCGKPVVNVSYRPAYDQGGPVEILPFLYLGSAYHASKCFLANLHITALLNVSR	101 110 120 130 140 150 160 170 180 185 ++++++	dA !k r ispnffgqll#
50	-KDSTNLDVLEE -KDSTNLDVLGK-KDSTNLDVLGK-KDVLNKDLMTC-NHSSDLQGLQA-YHAARRDMLDA-YHASKCEFLAN-SVAQDIPKLQK-SVAQDIPK-SVAQDIPK-SVAQDIPK-SVAQDIPK-SVAQDIPK-SVAQDIPK-SVAQDIPK-SVAQDIPK-SVAQUTPK-SVAQUTPK-SVAQUTPK-SVAQUTPK-SVAQ	150 LLNLSMNDAYDI CHILSMNDAYDI CHILSMNDAYDI THGMSSDDAYRE SHRVRLDEAFEF KKRVRLEEAFEF KKRVRLEEAFEF KKRVRLEEAFEF KKRVRLEEAFEF KKRVRLEAFON	₽
40	EILPFLYLGCA OILPYLYLGCA RILPHLYLGSQ EILPYLYLGSA EILPFLYLGSA	140 TVTVAYLMQK TICLAYLMGTCCAYLMGTCCAYLMGTCCAYLMGTCCAYLMGTCCAYLMGTCCAYLMMGTCCAYLMMGTCCAYLMMGTCCAYLWMGTMCAYLWMGTMCAYLWMGTMCAYLWMGTMCAYLWGTMGTMCAYLWGTMGTMGTATMGTATMGTATMGTATMGTATMGTATMGTA	aYIn
30	QPSFPV-EILP QPAFPV-QILP VPSVGLTRILP YDQGGPVEILP HDQGGPVEILP NDQGGPVEILP LPSQPCNEVTP RQPPNFSWVLP	130 HCLAGISRSVT HCLAGISRSVT HCQAGISRSAT HCQAGISRSAT HCQAGISRSAT HCAGGISRSPT HCREGYSRSPT	VIVHC aGisRs T
20	SDGSPLSNS SDGSPVPSS MSLSQPCLP SNSDPRVPI GCSSCGTPL GCSSCGTPL WNVSYRPA MG	120+REKNCGVLV -RSKKCGVLV -KLSSCQVIV -KUSGGRVLV -KNSGGRVLV -KDCRGRVLV -REKGGKVLV -REKGGKVLV -NARGEAVGV	VIV
10	RD-PNSATD RELPSSATE EGKPAALLP ALPPAGAEN TSVPDSAES PSATEPLDL ALISQCGKP LSVQDLNDL	110 AISFIDEA-ISIFIDEA-ISIFIDEA-ISIFIDEA-ISIFIDEA-ISIFIDSA-AIDFIDSI-AIDFIDSI-AIDFIDSI-AIDFIDGALGADFIDGALGAUVDEA-ISVQIVDEA-ISIS	ai f!D a
	SDLD 0 GLC PLS PLS SER SGSFE	101 QFFPE QFFPE QFFPE AWFQE SWFNE SWFNE SWFNE SWFNE OQIDR	4 -
	PYST1 MKP-7 hVH5 PAC1 MKP-1 MKP-5 VHR DSP-11	PYST1 MKP-7 hVH5 PAC1 MKP-1 MKP-4 MKP-5 VHR	Consensus



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>murine DSP-11 variant coding sequence

atgggcgtgcaaccccccaacttctcctgggtgcttccgggacggctggccggactggc gttgccccggctgccgcgcactaccagttcctgctggaccagggtgtgcggcacctgg tgtccctgacggagcgggaccccctcacagtgacagctgtcccggcctcacgctgcac cgaatgcgcatccctgacttttgcccgccgtccccggaacagatcgaccaatttgtgaa gatcgtggacgaggccaatgcccggggagagggctgttggagtgcactgtgccctaggct ttggccgcactggcaccatgctagcctgctacttggtgaaggaggggttttggcgCa ggagatgccattgctgagatccggcctgcgaccaggatccattgagacgtatgaaca ggagaaggccgtcttccagttctaccagcgaacaaaatga

Fig. 5

>murine DSP-11 variant amino acid sequence

MGVQPPNFSWVLPGRLAGLALPRLPAHYQFLLDQGVRHLVSLTERGPPHSDSCPGLTLH RMRIPDFCPPSPEQIDQFVKIVDEANARGEAVGVHCALGFGRTGTMLACYLVKERALAP GDAIAEIRRLRPGSIETYEQEKAVFQFYQRTK*

Fig. 6